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August 19, 2008

TO: Members of the MAG Transportation Review Committee

FROM: Tom Callow, City of Phoenix Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, August 28, 2008, 10:00 a.m.  
MAG Office, Suite 200, Saguaro Room  
302 North 1st Avenue, Phoenix

A meeting of the MAG Transportation Review Committee (TRC) will be held at the time and place noted above. **Please park in the garage under the building. Bring your ticket to the meeting as parking will be validated. Bicycles can be locked in the rack at the entrance to the parking garage.**

Members of the MAG Transportation Review Committee may attend **in person, via videoconference or by telephone conference call**. Those attending by videoconference must notify the MAG office three business days prior to the meeting. Those attending by telephone conference call are requested to call (602) 261-7510 between 9:55 a.m. and 10:00 a.m. on the date of the meeting. After the prompt, please enter the meeting ID number 6872 (MTRC) on the telephone keypad followed by the pound key. If you have a problem or require assistance, dial 0 after calling the number above.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Christina Hopes at the MAG Office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum in order to conduct business. A quorum is a simple majority of the membership or twelve people for the MAG TRC. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. If you have any questions or need additional information, please contact Eric Anderson or Christina Hopes at (602) 254-6300.

## TENTATIVE AGENDA

	COMMITTEE ACTION REQUESTED
1. <u>Call to Order</u>	
2. <u>Approval of Draft June 26, 2008 Minutes</u>	2. Approve Draft minutes of the June 26, 2008 meeting.
3. <u>Call to the Audience</u>  An opportunity will be provided to members of the public to address the Transportation Review Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Citizens will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Transportation Review Committee requests an exception to this limit.	3. For information and discussion.
4. <u>Transportation Director's Report</u>  Recent transportation planning activities and upcoming agenda items for the MAG Management Committee will be reviewed by the Transportation Director.	4. For information and discussion.

## ITEMS TO BE HEARD

5. <u>DRAFT MAG Federal Fund Programming Principles</u>  The Draft MAG Federal Fund Programming Principles for fiscal year (FY) 2009 advise the Transportation Review Committee (TRC) to develop guidelines for recommending projects to be selected and programmed in the competitive project selection process for MAG Federal Funds. The project selection process in FY 2009 for MAG Federal Funds is applicable to PM-10 Certified Street Sweepers and Paving Unpaved Road Projects. There will not be a competitive project selection	5. For information and discussion.
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process for arterial ITS, bicycle, and pedestrian projects in FY 2009; the competitive selection process for these three programs will resume in FY 2010, which will begin in July/August 2009. The TRC will be responsible to recommend Paving Unpaved Road Projects after the technical advisory committees (TAC) administer a project evaluation process. The PM-10 Certified Street Sweepers are recommended by the MAG Management Committee. Factors that could be considered in the guidelines to recommend projects for selection are the Regional Transportation Plan (RTP) goals and objectives, regional priorities, the TAC rank ordered list and comments about project applications, the CMAQ evaluation, congestion management analysis, and federal guidance and emphasis areas. Please refer to Attachment One for the FY 2009 schedule and more information for the competitive project selection process.

6. MAG Regional Transit Framework Study

Since February 2008, MAG has been working on a Regional Transit Framework Study. The study will provide decision-makers with a comprehensive perspective on the costs, schedules, trade-offs, impacts, and policy implications of future transit investment options. MAG Staff will outline the progress to date and the next steps in the study process.

7. MAG Access Management Scan

MAG Staff is conducting a state of the practice scan to determine the current and best access management policies and practices in the region. The results of the scan will be provided to member agencies in an effort to share best practices and guide MAG staff in determining how to encourage continuity on multi-agency projects in the region and to assist member agencies in managing access within their jurisdictions. MAG Staff will

6. For information and discussion.

7. For information and discussion.

provide an overview of the project and a brief discussion on the benefits of access management.

8. Member Agency Update

This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

9. Next Meeting Date

The next regular TRC meeting will be scheduled Thursday, September 25, 2008 at 10:00 a.m. in the MAG Office, Saguaro Room.

8. For information and discussion.

9. For information and discussion.

DRAFT MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
TRANSPORTATION REVIEW COMMITTEE

June 26, 2008

Maricopa Association of Governments Office  
302 North First Avenue, Suite 200, Saguaro Room  
Phoenix, Arizona

MEMBERS ATTENDING

Phoenix: Tom Callow	Maricopa County: John Hauskins
ADOT: Kwi-Sung Kang for Floyd Roehrich	Mesa: Brent Stoddard for Scott Butler
*Avondale: David Fitzhugh	Paradise Valley: Robert M. Cicarelli
Buckeye: Scott Lowe	Peoria: David Moody
Chandler: Dan Cook for Patrice Kraus	Queen Creek: Mark Young
El Mirage: Lance Calvert	RPTA: Bob Antilla for Bryan Jungwirth
Fountain Hills: Randy Harrel	Scottsdale: Dave Meinhart for Mary O'Connor
*Gila Bend: Vacant	Surprise: Randy Overmyer
*Gila River: David White	Tempe: Carlos de Leon
Gilbert: Stephanie Prybl for Tami Ryall	Valley Metro Rail: John Farry
Glendale: Terry Johnson	Wickenburg: Gary Edwards
Goodyear: Cato Esquivel	*Youngtown: Lloyce Robinson
Guadalupe: Jim Ricker	
Litchfield Park: Mike Cartsonis	

EX-OFFICIO MEMBERS ATTENDING

Regional Bicycle Task Force: Maria Deeb for Jim Hash, City of Mesa	Pedestrian Working Group: Brandon Forrey, City of Peoria
*Street Committee: Darryl Crossman, City of Litchfield Park	*Transportation Safety Committee: Kerry Wilcoxon, City of Phoenix
*ITS Committee: Mike Mah, City of Chandler	

\* Members neither present nor represented by proxy.    + - Attended by Videoconference  
# - Attended by Audioconference

OTHERS PRESENT

Jonathan Gelbart, MAG	Ed Stillings, FHWA
Monique de los Rios-Urban, MAG	David Johnson, Town of Buckeye
Bob Hazlett, MAG	Romina Korkes, City of Goodyear
Roger Herzog, MAG	Ray Dovalina, City of Phoenix
Vladimir Livshits, MAG	Wulf Grote, Valley Metro/RPTA
Nathan Pryor, MAG	Steve Taylor, Jacobs Carter Burgess
Steve Tate, MAG	Bob Ward
Kevin Wallace, MAG	Cherie Gould
Eileen Yazzie, MAG	Stephen Gould
Wang Zhang, MAG	

1. Call to Order

Mr. Tom Callow from the City of Phoenix called the meeting to order at 10:10 a.m.

2. Approval of May 30, 2008 Draft Minutes

Mr. Callow asked if there were any changes or amendments to the meeting minutes, and there were none. Mr. David Moody from the City of Peoria moved to approve the minutes as presented. Mr. Dave Meinhardt from the City of Scottsdale seconded, and the minutes were subsequently approved by unanimous voice vote of the Committee.

3. Call to the Audience

Mr. Callow stated that he had not received any request to speak cards from the audience, and moved on to the next item on the agenda.

4. Transportation Director's Report

Mr. Callow invited Mr. Eric Anderson to present the Transportation Director's Report. Mr. Anderson announced that MAG hosted the Desert Peaks Awards at the Biltmore the previous evening. He announced that Bill Hayden from the Arizona Department of Transportation (ADOT) was recognized for 39 years of professional service in the region. He also announced that the Town of Gilbert and ADOT were recognized for their efforts with Loop 202 Santan Freeway improvements and shared use of right-of-way.

The May Regional Area Road Fund (RARF) revenue was the second item on the Transportation Director's Report. Mr. Anderson informed the Committee that May RARF revenues decreased 5.8 percent from the previous year and that year-to-date RARF revenues were down 2.78 percent from the previous year. He expressed concern about the decline in overall RARF collections. Mr. Anderson stated that MAG would continue to monitor the revenue collections as well as the impact of increasing gas prices on the sales tax revenues.

As the final item on the Transportation Director's Report, Mr. Anderson announced that Transit Framework Study was underway. He stated that the last public scoping meeting was scheduled that evening at the Arizona State University's (ASU) downtown campus and encouraged interested individuals to attend. Mr. Callow asked if there were any questions or comments on this agenda item. There were none, and this concluded the Transportation Director's Report.

5. Project Changes – Amendments, and Administrative Modifications to the FY 2008-2012 MAG Transportation Improvement Program

Mr. Callow invited Ms. Eileen Yazzie, the MAG Transportation Programming Manager to

present project changes to the Fiscal Year (FY) 2008-2012 MAG Transportation Improvement Program (TIP). Ms. Yazzie reminded the Committee of a previous decision not to develop a new TIP for the current fiscal year due to several programming issues, including changes to Congestion Mitigation and Air Quality (CMAQ) funding made at the federal level. She stated a comprehensive list of project amendments and administrative changes to the FY2008-2012 were needed in lieu of producing a new TIP.

Ms. Yazzie reported that the majority of the changes pertained to the Arterial Life Cycle Program (ALCP), the first five years of the Freeway Life Cycle Program, and projects programmed in fiscal years 2008, 2009, and 2010. She informed the Committee that air quality conformity analysis was conducted based on the updated project information provided by member agency staff and announced that the analysis results were on the MAG Management Committee and Regional Council agendas for July. Ms. Yazzie also informed the Committee that project information provided during the annual update process was on file with MAG Staff and would be used to develop of the MAG 2010-2014 Transportation Improvement Program.

Mr. Callow asked if there were any questions or comments on this agenda item. There were none. Mr. Meinhart moved to approve the project changes to the MAG FY2008-2012 Transportation Improvement Program as presented. Mr. Moody seconded, and the project changes to the 2008-2012 TIP were subsequently approved by unanimous voice vote of the Committee.

6. Final Closeout of the Federal Fiscal Year (FFY) 2008 MAG Federally Funded Program

Next, Mr. Callow invited Ms. Yazzie to present the final closeout of the FFY08 MAG Federally Funded Program. Ms. Yazzie stated materials for this agenda item were not included in the agenda packet because additional project information was not available at the time of the mailing.

Ms. Yazzie indicated that since the mailing, the City of Litchfield Park informed MAG Staff that the Town would not obligate a paving of unpaved roads project. As a result, the amount of unprogrammed federal funding increased from \$40.1 million to \$40.5 million. Ms. Yazzie stated that after conducting a financial analysis MAG Staff determined the available funds for closeout would increase from \$14.7 million to \$15.05 million. She announced that the first project on the federal fund closeout contingency list could be funded with the increased closeout funds.

Then, Ms. Yazzie directed the Committee to Table B in the handouts provided. She referenced light rail project (VMR08-808T), the first project on the contingency list, and announced that the total project funding would increase to \$5.86 million. Ms. Yazzie noted the funding increased finalized the funding for the light right rail project. Ms. Yazzie also referenced Table A in the handouts, which reflected the addition of the Litchfield Park's paving of unpaved roads project to the deferred projects listing.

Mr. Callow asked if there were any questions or comments on this agenda item. Mr. John Farry from Valley Metro Rail motioned to approve the final closeout for FFY08 funds and the amend the FY2008-2012 TIP, the FY2008 MAG Unified Planning Work Program (UPWP), and annual budget to be consistent with the approval of the final closeout. Mr. Lance Calvert from the City of El Mirage seconded, and the motion was subsequently approved by unanimous voice vote of the Committee.

## 7. Proposition 400 Noise Mitigation Funding

Continuing on to the next agenda item, Mr. Callow invited Mr. Anderson to discuss Proposition 400 Noise Mitigation Funding. Mr. Anderson announced that copies of the Proposition 400 Noise Mitigation Report were available and that each jurisdiction had been sent a copy of the report. He added that an electronic version was available on CD upon request. Mr. Anderson directed the Committee's attention to the agenda packet, which included the first five chapters of the report and the executive summary.

According to Mr. Anderson, the MAG Regional Council and Transportation Policy Committee (TPC) allocated \$75 million of Proposition 400 funds for noise mitigation. He explained that \$55 million in funds were used for rubberized asphalt throughout the region and that \$20 million in funding remained for noise mitigation efforts.

Mr. Anderson reported that last year the TPC issued a request to member agencies to submit possible projects in areas along the freeway system that might need additional noise mitigation. He stated that four jurisdictions submitted 11 noise mitigation projects in response to the TPC's request, which included:

- I-17 at Camelback (Phoenix);
- I-10 from 7th Ave to 15th Ave (Phoenix);
- L101 at 51st Ave (Phoenix);
- L101 at 7th St. (Phoenix);
- SR51 at Greenway (Phoenix);
- L101 at 90th St (Scottsdale);
- L101 at Cactus (Scottsdale);
- L101 from Peoria to Grand (Peoria);
- L101 from Olive to Peoria (Peoria);
- L101 from Northern to Olive (Peoria); and,
- L303 from Deer Valley to north of Robertson Drive (Maricopa County).

Mr. Anderson informed the Committee that results of the noise modeling at these locations were included in the chapter four of the report. He stated the results indicated that ten of the eleven locations exceeded the 64 decibel threshold of acceptable noise levels established by ADOT. He reported noise levels at the Loop 101 and Cactus Rd location were 63 decibels, only one decibel lower than the established threshold. Mr. Anderson commented that noise modeling is both a science and an art and encouraged the Committee to include the eleventh project in the list of eligible projects for funding. He added that the modeling indicated that future noise levels at this location were projected to exceed the established threshold.



Mr. Anderson reported the estimated cost for the noise mitigation projects was \$16 million, excluding design costs. He stated with the inclusion of design and anticipated increased construction costs that the total estimated costs for the projects would be at or just below the \$20 million in available noise mitigation funding.

Mr. Callow asked the Committee if there were any questions about the agenda item, there were none. Mr. Callow announced that three cards requesting to speak on the agenda item had been submitted from the public. He noted that two of the requests were in support of the agenda item and the third was statement only.

Then, Mr. Callow invited Mr. Steve Dreiseszun from the City of Phoenix to address the Committee. Mr. Dreiseszun informed the Committee that he was the immediate past president of the FQ Story's Historic Preservation Association. Mr. Dreiseszun reported that the Interstate-10 alignment, which serves more than 260,000 vehicles per day, traverses his neighborhood. He explained that a majority of those vehicles are heavy trucks, which create a substantial amount of noise.

According to Mr. Dreiseszun, the majority of improvements in his area have focused on rubberized asphalt. He acknowledged the mitigation strategy had improved noise levels in the neighborhood, but that additional noise mitigation was needed. He expressed gratitude for dedication of Proposition 400 towards noise mitigation and thanked MAG Staff, particularly Mr. Anderson, their efforts on the issue. In conclusion, Mr. Dreiseszun encouraged the Committee to support the funding of the noise mitigation projects listed.

Next, Mr. Callow invited Mr. Bob Ward from the City of Scottsdale to address the Committee. Mr. Ward acknowledged the efforts of the City of Scottsdale, particularly Mr. Meinhardt's efforts, in addressing noise levels in the neighborhoods near Loop 101 and Cactus. Mr. Ward stated that 98% of the residents in Greenstone and Astoria had signed a noise mitigation petition. Like Mr. Dreiseszun, Mr. Ward acknowledged impact of the rubberized asphalt, but stated that additional measures were needed.

Mr. Ward encouraged the Committee to support the agenda item and asked the Committee to consider the height of noise walls and the potential impact of widening the 101 when making decisions about the project. Mr. Anderson thanked Mr. Ward for his comments and explained that the noise modeling projections included impacts on surrounding neighborhoods of widening Loop 101.

Mr. Callow then invited Mrs. Cherie Gould from the City of Scottsdale to address the Committee. Ms. Gould thanked the Committee for the opportunity to speak and expressed gratitude for the construction of the Loop 101. She explained that her family has lived in both neighborhoods adjacent to the 101 at Cactus. Ms. Gould acknowledged that noise levels did not pose an issue for her family when they lived in Greenstone; however, the noise levels were problematic in her current neighborhood of Astoria.

Mrs. Gould encouraged the Committee to support the agenda item, expressed excitement for the noise mitigation projects, and thanked everyone involved in the process. This concluded Mrs. Gould's comments. Mr. Callow thanked Mrs. Gould and the other speakers for their input. He

asked the Committee if they had any questions or comments about the agenda item. Mr. Lance Calvert from the City of El Mirage expressed concerns about the cost-effectiveness of the projects in relation to the number of impacted customers. Mr. Calvert asked Mr. Anderson if the \$55 million for the rubberized asphalt projects were allocated or spent. Mr. Anderson replied that the funds had been spent.

Mr. Calvert expressed concerns about the allocation of the remaining \$20 million in noise mitigation funding. He questioned if these projects were the best use of the taxpayers money citing the amount of funding spent per household to mitigate noise. He also questioned the prudence of spending the funds at this time. He suggested that an expenditure limit per household or matching funds from member jurisdictions should be considered.

Mr. Anderson explained that the Transportation Policy Committee discussed noise mitigation at length and decided to specifically set aside the funding for projects that may not meet all of the thresholds of ADOT's noise mitigation policies. He added that the goal of the funding was to make neighborhoods, like the neighborhoods represented by the speakers, more livable. Discussion followed.

After the discussion, Mr. John Hauskins from Maricopa County motioned to recommend that noise barriers be constructed using Proposition 400 Noise Mitigation funds at the eleven sites identified in the report. Mr. Randy Overmyer seconded the motion. The motion passed with the majority voice vote in favor and one nay from Mr. Lance Calvert from the City of El Mirage.

#### 8. Use of I-10 Corridor for High Capacity Transit

Mr. Callow invited Mr. Wulf Grote from Valley Metro Rail to present on the use of the Interstate-10 (I-10) corridor for high capacity transit. Mr. Grote stated that he would provide the Committee with a status update for the I-10 corridor for transit and early recommendations for the corridor to facilitate improved coordination with ADOT.

Mr. Grote directed the Committee's attention to a replica of the 57-mile map included in the Regional Transportation Plan, which depicted planned transportation improvements in the region funded through a variety of sources, including Proposition 400. He announced that Valley Metro Rail was planning a high capacity transit project for the I-10 corridor from the downtown area to approximately 83<sup>rd</sup> Avenue on the west end. He stated that studies for the project began one year ago and that the project was scheduled for completion in 2019, due in part to the use of federal funds.

Mr. Grote informed the Committee that currently 250,000 vehicles travel on the I-10 corridor per day, and the number of vehicles was projected to double within the twenty next years. He stated that ADOT plans to construct additional highway lanes by 2012 to address current and projected traffic on the corridor. According to Mr. Grote, travel time was anticipated to increase by 35 percent on the corridor despite planned improvements. He added that anticipated travel times would rise depending on incidents or accidents along the corridor. Mr. Grote stated the high capacity transit along the corridor would provide faster and more consistent travel times for the corridor.

Mr. Grote informed the Committee that in 1978 an environmental impact statement developed during the planning of the I-10 corridor suggested a 50-foot median be set aside for future transit consideration. At that time, the environmental impact statement did not identify the specifics of the transit solution to be used. He reported that Valley Metro recently completed an alternatives analysis on that corridor. The analysis completed by Valley Metro reviewed the different locations and types of transit.

The study results determined that high capacity transit located in the center of the corridor would be the best alternative. He added that future efforts would focus on this alternative for several reasons, including the outline of the project parameters in 1978 as well as the Regional Transportation Plan.

Mr. Grote emphasized the importance for an early decision of the corridor as ADOT moves forward with plans to widen the I-10 corridor. He added the design concept report for I-10 widening would be finalized by ADOT within the next year.

Mr. Grote informed the Committee that although the preferred alignment for the majority of the corridor had been determined in the alternative analysis, a decision was still needed as the corridor neared the downtown metropolitan area. He reported that three to four east-west alignment alternatives and three to four north-south alignment alternatives had been suggested during the alternative analysis. He added that light rail, bus rapid transit, and traditional bus service were being considered for the corridor.

After Mr. Grote finished his presentation, the Committee discussed the various alternatives presented. When the discussion concluded, Mr. Meinhart motioned to recommend the adoption of the I-10 freeway right-of-way, west of I-17, as the locally preferred alternative for high capacity transit improvements. Mr. Mike Cartsonis from the City of Litchfield Park seconded. The motion passed with the majority voice vote in favor and one abstention from the Arizona Department of Transportation.

#### 9. MAG Travel Time and Travel Speed Study

Moving onto the next order of business, Mr. Callow then invited Mr. Wang Zhang from MAG to present a report on the MAG Travel Time and Travel Speed Study. As part of his presentation, Mr. Zhang introduced Mr. Steve Taylor from Jacobs Carter Burgess, who assisted MAG in conducting the study.

Mr. Zhang reported that the objectives of the travel time and speed study were to collect travel times, travel speeds and intersection delays on the regional road network. Additional objectives included updating traffic conditions on arterials and collecting data for model calibration. Mr. Zhang informed the Committee that MAG Staff and consultant spent a year collecting data for the study. One method used to gather data included the use of a "GPS Probe Car" that could ground truth travel time and speed.

Next, Mr. Zhang invited Mr. Taylor to present the findings of the study. Mr. Taylor thanked the Committee for the opportunity to speak and explained that the current study was an update to a study originally conducted in 1993. Mr. Taylor reported that data collected could be presented in a variety of ways, although it was primarily intended for geographic information systems. He explained that the data was collected throughout the region on major arterials and included numerous attributes including time of day, location collect site and posted speed limit at that location site.

Mr. Taylor announced that travel contours were developed as part of the study. The travel speed contours display the distances individuals could travel within a five or ten minute period. In addition to developing travel contours, MAG Staff and the consultant team analyzed the travel time and travel speed changes between 1993 and the data collected for this study.

Mr. Zhang informed the Committee that the final report for the MAG Travel Time and Travel Speed Study was available for download from the MAG website. Additional information available for download from the website included the executive summary and the report appendix. Mr. Zhang also announced that a geodatabase was available upon request adding that MAG Staff would continue to conduct analysis and report those findings to the Committee at a later date.

Mr. Callow asked if there were any questions or comments about the MAG Travel Time and Travel Speed Study. There were none, and this concluded Mr. Zhang's report.

#### 10. DRAFT - MAG Federal Fund Programming Principles

Mr. Callow invited Ms. Yazzie to present the draft MAG Federal Fund Programming Principles. Ms. Yazzie reported that to date MAG Staff had conducted working group meetings on the draft principles in March 2007, November 2007, and January 2008. MAG Staff had presented drafts to Committee as well as other MAG Committees over the past year.

Ms. Yazzie announced that the next stakeholder meeting would be held on July 10<sup>th</sup> from 1:30pm to 3:00pm in the Cholla Room at the MAG Offices. She encouraged member agencies to attend, adding that individuals could also submit comments and suggestions prior to the meeting for discussion at the next stakeholder meeting. She informed the Committee that MAG Staff would work with stakeholders throughout July for final input and evaluation.

Ms. Yazzie stated that the goal was to complete the draft principles by the end of July. Then, MAG Staff would test the draft principles in FY09 for the competitive project selection process for paving projects and street sweepers, project changes requests, and the Federal Fiscal Year 2009 Closeout process. She explained that by using the principles a draft format MAG Staff could assess and adjust the process before the draft principles are formally approved through the MAG Committee process.

Continuing on, Ms. Yazzie directed the Committee's attention to Section 200 of the draft principles. She announced the Section addressed the need for new applications annually and the annotation of required information. Under provisions of Section, MAG Staff would not accept

applications where required information was incomplete. Mr. Anderson explained that the requirement was similar to that established for consultants and that the annotation of required fields would serve as a checklist for member agencies. Ms. Yazzie stated that Section 200 also established due dates for application, which will be published in the MAG Transportation Programming Guidebook. Finally, Section 200 established that MAG Staff would not accept late applications or applications that are not signed by a manager or designated representative.

Ms. Yazzie reported that Section 300 established the role of MAG Committees, particularly, Modal Technical Advisory Committees (TACs) in the programming process. Under Section 300, Modal TACs would implement the project evaluation process by producing a rank order list of project applications. Section 300 would prohibit Modal TACs from changing the project scope, schedule, budget, or requested federal funds during the evaluation process.

Ms. Yazzie stated that the Modal TAC review would be a tiered process. During the first meeting, the Modal TAC would hear project presentations and request clarification, if needed. At the second meeting, the Modal TAC would hear revised project information and develop a project ranking based on the process established in the draft principles, which would include a technical evaluation, project criteria analysis, and qualitative assessment.

Ms. Yazzie announced that in response the Transportation Review Committee's (TRC) request to have a more active role in the programming process that the TRC's role would be to review the evaluation and analysis from the Modal TAC's and select projects to be programmed. Furthermore, the TRC would recommend changes to a project scope, schedule, or budget during the project selection process. She added that draft principles would also require construction projects with a separate design and/or clearance phase be programmed at least one year prior to the federally funded construction phase.

Next, Ms. Yazzie directed the Committee's attention to Section 400. She explained the Section clarified that if a member agency did not use all of the federal funds programmed or decided not to do a project that funds would return to the region for reprogramming. She stated that Section 400 also addressed reprioritization. In closing, Ms. Yazzie encourage member agencies to submit comments or suggestions to MAG Staff. A brief discussion followed. Mr. Callow asked if there were any additional questions or comments for Ms. Yazzie. There were none, and this concluded Ms. Yazzie's report.

#### 11. Member Agency Update

Mr. Callow asked members of the Committee if they would like to provide updates; address any issues or concerns regarding transportation at the regional level; and asked if any members in attendance would like to address recent information that was relevant to transportation within their respective communities.

Mr. Callow acknowledged the retirement of Mr. Moody from the City of Peoria. Mr. Moody thanked Mr. Callow for the acknowledgment and informed the Committee that he would continue to work part -time for the City on a consultant basis. Mr. Callow also acknowledged the retirement of Mr. Don Herp from the City of Phoenix. He announced that Mr. Ray Dovalina

would be replacing Mr. Herp at the City of Phoenix. There were additional no member comments.

12. Next Meeting Date

Mr. Callow informed members in attendance that the next meeting of the Committee would be held on July 24, 2008. There being no further business, Mr. Callow adjourned the meeting at 11:44 a.m.

# **ATTACHMENT ONE**

Competitive Federal Fund Programming Process	
2008	
August	<ul style="list-style-type: none"> <li>• <b>8th:</b> Federal Fund Project Applications available for Paving Unpaved Road Projects - FY2011 and FY2012, and PM-10 Certified Street Sweepers - FY2009</li> <li>• <b>11th:</b> 1:30-3:30 p.m. Workshop on MAG Transportation Programming and Federal Fund Project Applications</li> <li>• <b>22nd:</b> 9:00 - 12:00 a.m., MAG Cholla Room, Open Working Group - Federal Fund Project Applications</li> </ul>
September	<ul style="list-style-type: none"> <li>• <b>12th:</b> 9:00 - 12:00 a.m., MAG Cholla Room, Open Working Group - Federal Fund Project Applications</li> <li>• <b>19th:</b> Noon/12:00 p.m. - Due Date and Time, signed Project Applications due to MAG. Late Applications will not be accepted.</li> <li>• <b>25th:</b> Transportation Review Committee (TRC) reviews information on the draft list of MAG Federal Fund project requests (no scores or Technical Advisory Committee (TAC) ranks)</li> </ul>
October	<ul style="list-style-type: none"> <li>• <b>14th:</b> Street Committee reviews Project applications for Paving Unpaved Road Projects - FY2011 and FY2012, and PM-10 Certified Street Sweepers - FY2009</li> </ul>
November	<ul style="list-style-type: none"> <li>• Street Committee - second review of Project applications for Paving Unpaved Road Projects - FY2011 and FY2012, and PM-10 Certified Street Sweepers - FY2009</li> </ul>
December	<ul style="list-style-type: none"> <li>• <b>11th:</b> AQTAC review and recommends CMAQ evaluations, and rank Project applications for Paving Unpaved Road Projects - FY2011 and FY2012, and PM-10 Certified Street Sweepers - FY2009</li> </ul>
2009	
January	<ul style="list-style-type: none"> <li>• Managers and RC review/recommend/approve PM-10 Certified Street Sweepers - FY2009</li> <li>• <b>29th:</b> TRC review/recommend/approve Draft of MAG Federal Fund Program to be included in the Draft 2010-2014 TIP</li> </ul>
February	<ul style="list-style-type: none"> <li>• Managers, TPC, and RC review/recommend/approve Draft of MAG Federal Fund Program to be included in the Draft 2010-2014 TIP</li> </ul>
MAG FFY09 Closeout	
2009	
March	<ul style="list-style-type: none"> <li>• <b>2nd:</b> FFY09 Project Deferral Forms and Justification Memo requirements are available</li> <li>• <b>26th:</b> Project Applications available for FFY2009 Closeout funds</li> </ul>
March - April	<ul style="list-style-type: none"> <li>• Member agencies submit Project Deferral Forms and Justification Memos throughout March and April. Please make a best effort to submit before April 17</li> </ul>
April	<ul style="list-style-type: none"> <li>• <b>17th:</b> Noon/12:00 p.m. - Due Date and Time, for signed Project Applications for FFY2009 Closeout. Late Applications will not be accepted.</li> <li>• <b>23rd:</b> TRC review/recommend/approve list of Deferred FFY 09 Federal funded projects</li> </ul>
May	<ul style="list-style-type: none"> <li>• Managers, TPC and RC review/recommend/approve list of Deferred FFY 09 Federal funded projects</li> <li>• <b>28th:</b> TRC review/recommend/approve Interim FFY 2009 Closeout</li> </ul>
May - June	<ul style="list-style-type: none"> <li>• Member agencies submit remaining Project Deferral Forms and Justification Memos throughout May and June.</li> </ul>
June	<ul style="list-style-type: none"> <li>• Managers, TPC and RC review/recommend/approve Interim FFY 2009 Closeout</li> <li>• <b>25th:</b> TRC review/recommend/approve Final FFY 2009 Closeout</li> </ul>
July	<ul style="list-style-type: none"> <li>• Managers, TPC and RC review/recommend/approve Final FFY 2009 Closeout</li> </ul>





# REGIONAL TRANSPORTATION PLAN 2007 UPDATE

JULY 2007



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## CHAPTER TWO

### GOALS, OBJECTIVES AND PRIORITY CRITERIA

Regional goals and objectives provide the planning process with a basis for identifying options, evaluating alternatives and making decisions on future transportation investments. The MAG Transportation Policy Committee has identified a total of four goals and 15 objectives, which were approved on February 19, 2003. In addition, Arizona Revised Statute 28-6354.B directs MAG to develop criteria to establish the priority of corridors, corridor segments, and other transportation projects. As part of the regional transportation planning process, MAG applied various priority criteria for the development of the Regional Transportation Plan (RTP).

#### **Goals and Objectives**

A goal is a general statement of purpose that represents a long-term desired end to a specific state of affairs. It is generally measurable by qualitative means. By identifying broad goals that are both visionary and practical, and which respond to the values of the region, the focus of the planning process can be more readily communicated to the public. The goals, in turn, can be defined in greater detail by specifying multiple objectives for each goal.

An objective is very similar to a goal, as it represents a desired end to a specific state of affairs. However, an objective is an intermediate result that must be realized to reach a goal. The definition of an objective is usually more focused than that of a goal and is typically more subject to being measured. Objectives can be further assessed through performance measures that are identified for each objective.

Certain goals and objectives are related to the way in which the regional transportation system is performing overall. Others may be used to evaluate individual components of the overall transportation system or to evaluate proposed projects. They can also serve as the basis to monitor how the transportation system performs as the RTP is implemented. In addition, goals and objectives relate to the planning process, and the importance of accountability during the development and implementation of the plan. Individual goals with their supporting objectives are listed below.

#### **Goal 1: System Preservation and Safety**

Transportation infrastructure that is properly maintained and safe, preserving past investments for the future.

- **Objective 1A:** Provide for the continuing preservation and maintenance needs of transportation facilities and services in the region, eliminating maintenance backlogs.
- **Objective 1B:** Provide a safe and secure environment for the traveling public, addressing roadway hazards, pedestrian and bicycle safety, and transit security.

## **Goal 2: Access and Mobility**

Transportation systems and services that provide accessibility, mobility and modal choices for residents, businesses and the economic development of the region.

- **Objective 2A:** Maintain an acceptable and reliable level of service on transportation and mobility systems serving the region, taking into account performance by mode and facility type.
- **Objective 2B:** Provide residents of the region with access to jobs, shopping, educational, cultural, and recreational opportunities and provide employers with reasonable access to the workforce in the region.
- **Objective 2C:** Maintain a reasonable and reliable travel time for moving freight into, through and within the region, as well as provide high-quality access between intercity freight transportation corridors and freight terminal locations, including intermodal facilities for air, rail and truck cargo.
- **Objective 2D:** Provide the people of the region with transportation modal options necessary to carry out their essential daily activities and support equitable access to the region's opportunities.
- **Objective 2E:** Address the needs of the elderly and other population groups that may have special transportation needs, such as non-drivers or those with disabilities.

## **Goal 3: Sustaining the Environment**

Transportation improvements that help sustain our environment and quality of life.

- **Objective 3A:** Identify and encourage implementation of mitigation measures that will reduce noise, visual and traffic impacts of transportation projects on existing neighborhoods.
- **Objective 3B:** Encourage programs and land use planning that advance efficient trip-making patterns in the region.
- **Objective 3C:** Make transportation decisions that are compatible with air quality conformity and water quality standards, the sustainable preservation of key regional ecosystems and desired lifestyles.

## **Goal 4: Accountability and Planning**

Transportation decisions that result in effective and efficient use of public resources and strong public support.

- **Objective 4A:** Make transportation investment decisions that use public resources effectively and efficiently, using performance-based planning.
- **Objective 4B:** Establish revenue sources and mechanisms that provide consistent funding for regional transportation and mobility needs.
- **Objective 4C:** Develop a regionally balanced plan that provides geographic equity in the distribution of investments.
- **Objective 4D:** Recognize previously authorized corridors that are currently in the adopted MAG Long-Range Transportation Plan; i.e., Loop 303 and the South Mountain Corridor.

- **Objective 4E:** Achieve broad public support for needed investments in transportation infrastructure and resources for continuing operations of transportation and mobility services.

### **Priority Criteria**

Arizona Revised Statute 28-6354.B directs MAG to develop criteria to establish the priority of corridors, corridor segments, and other transportation projects. These criteria include public and private funding participation; the consideration of social and community impacts; the establishment of a complete transportation system for the region; the construction of projects to serve regional transportation needs; the construction of segments to provide connectivity on the regional system; and other relevant criteria for regional transportation.

As part of the regional transportation planning process, MAG has applied these kinds of criteria, both for the development and the implementation of the Regional Transportation Plan (RTP). The RTP was developed through a performance-based process that evaluated alternatives relative to a range of performance measures. Also, specific criteria were considered as part of the process to schedule the implementation of transportation projects throughout the duration of the planning period. The discussion below describes how the criteria applied in the RTP planning process correspond to the categories included in ARS 28-6354.B.

### **Extent of Local Public and Private Funding Participation**

A higher level of local public and private funding participation in the RTP benefits the region by leveraging regional revenues and helping ensure local government commitment to the success of the regional program. The extent of local public and private funding participation is addressed in a number of ways in the MAG transportation planning process.

- **Project Matching Requirements** - In developing funding allocations among the various RTP components and project types, local matching requirements have been established. The local matching requirements in the RTP are:
  - 30 percent major street projects, including ITS elements.
  - 30 percent bicycle and pedestrian projects.
  - For air quality and transit projects involving Federal funds, minimum Federal match requirements were assumed. Depending on the specific project funding mix, this match may be provided from regional revenue sources.
- **Private Funding Participation** - As part of the policies and procedures developed for the Arterial Street Life Cycle Program, private funding participation is recognized as applicable local match for half-cent funds for street and intersections projects. This policy helps free local monies that may then be applied to additional transportation improvements.
- **Local Government Incentives** - In the Arterial Street Life Cycle Program, incentives to make efficient use of regional funds have been established by ensuring that project savings by local governments may be applied to new projects in the jurisdiction that achieved those savings.

## Social and Community Impacts

Regional transportation improvements can have both beneficial and negative social and community impacts. It is important to conduct a thorough assessment of these impacts, to ensure that they are taken into account in the decision-making process. The MAG planning effort assesses social and community impacts at each key stage of the transportation planning and programming process. In addition, it should be noted that similar efforts are carried out by the agencies implementing specific transportation improvement projects.

- **Public Participation and Community Outreach** - An aggressive citizen participation and outreach program is conducted to obtain public views on the potential community and social impacts of transportation improvements. In particular, input is sought regarding the possible impacts of specific transportation alternatives on the community's social values and physical structure.
- **Social Impact Assessment** - The social impact of transportation options is evaluated as part of the Title VI/Environmental Justice assessment. In this assessment, potential transportation impacts are evaluated for key communities of concern, including minority populations, low-income populations, aged populations, mobility disability populations, and female head of household populations. In addition, community goals are taken into account by basing future travel demand estimates, on local land use plans.
- **Corridor and Community Impact Assessment** - Corridor-level analyses are conducted, which assess the possible social and community impacts of alternative facility alignments based on neighborhood factors such as noise, air quality and land use. Community impacts of transportation facilities are further analyzed by assessing air quality effects through the emissions analysis of plan alternatives, as well as conducting a Federally required air quality conformity analysis of the RTP. In addition, the process for annually updating the Regional Transportation Improvement Program includes project air quality scores, which reflect the potential community impacts of the projects.

## Establishment of a Complete Transportation System for the Region

The RTP calls for major investments in all elements of the regional transportation system over the next several decades. It is critical that these expenditures result in a complete and integrated transportation network for the region. The MAG planning process responds directly to this need by conducting transportation planning at the system level, giving priority to segments that can lead to a complete transportation system as quickly as possible, and maintaining a life cycle programming process for all the major modes.

- **System Level Planning Approach** - The regional planning effort is conducted at the system level, taking into account all transportation modes in all parts of the MAG geographic area. This systems level approach is applied in identifying and analyzing alternatives, as well as specifying the final RTP. In this way, the complete transportation needs of the region, as a whole, are identified and addressed in the planning process.

- **Project Development Process and Project Readiness** - The implementation of regional transportation projects requires a complex development process. This process involves extensive corridor assessments, environmental studies, and engineering concept analyses. This is followed by right-of-way acquisition and final design work, before actual construction may begin. For a variety of reasons, certain projects may progress through this process more rapidly than others. By moving forward, where possible, on those projects with the highest level of readiness for construction, important transportation improvements can be delivered as quickly as possible.
- **Progress on Multiple Projects** - Major needs for transportation improvements exist throughout the MAG Region. The scheduling of projects is aimed at proceeding with improvements to the transportation network throughout the planning period in all areas of the region. This will lead toward a complete and functioning regional transportation system that benefits all parts of the MAG Region.
- **Revenues, Expenditures and Life Cycle Programming** - Cash flow patterns from revenue sources limit the amount of work that can be accomplished within a given period of time. Project expenditures need to be scheduled to accommodate these cash flows. Life cycle programs have been established that take these conditions into account and implement the projects in the RTP for the major transportation modes: freeways/highways, arterial streets, and transit. The life cycle programs provide a budget process that ensures that the estimated cost of the program of improvements does not exceed the total amount of revenues available. This ensures that a complete transportation system for the region will be developed within available revenues.

As part of the life cycle programming process, consideration is given to bonding a portion of cash flows to implement projects that provide critical connections earlier than might otherwise be possible. This has to be weighed against the reduction in total revenues available for constructing projects, which results from interest costs.

### **Construction of Projects to Serve Regional Transportation Needs**

The resources to implement the RTP are drawn from regional revenue sources and should address regional transportation needs. Transportation projects that serve broad regional needs should have a higher priority than those that primarily only serve a local area. At the same time, the nature of regional transportation needs varies across the MAG Region and the same type of transportation solution does not apply everywhere in the region. Enhancing the arterial network may represent the most pressing regional need in one part of the region, whereas adding new freeway corridors may be the key need in another; and expanding transit capacity may represent the best approach in yet another area. The process to develop the RTP recognized that this was the nature of regional transportation needs in the MAG Region. As a result, the RTP is structured to respond to different types of needs in different parts of the MAG Region.

Although the modal emphasis of the transportation improvements identified in the RTP varies from area to area, the effects of these improvements can be assessed using common measures of system performance and regional mobility. The measures that were utilized for this purpose are described below. These criteria were applied in the development of the RTP to evaluate alternatives and



establish implementation priorities. They can also be applied in the future to evaluate potential adjustments to the priority of corridors, corridor segments, and other transportation projects and services.

- **Facility/Service Performance Measures** - Facility performance measures focus on the amount of travel on specific facilities, the usage of transportation services, the degree of congestion, and other indicators of the level of service as provided:
  - Accident rate per million miles of passenger travel.
  - Travel time between selected origins and destinations.
  - Peak period delay by facility type and geographic location.
  - Peak hour speed by facility type and geographic location.
  - Number of major intersections at level of service "E" or worse.
  - Miles of freeways with level of service "E" or worse during peak period.
  - Average Daily Traffic on freeways/highways and arterials
  - Total transit ridership by route and transit mode.
  - Cost effectiveness: trips served per dollar invested.
- **Mobility Measures** - Mobility measures focus on the availability of transportation facilities and services, as well as the range of service options as provided:
  - Percentage of persons within 30 minutes travel time of employment by mode.
  - Jobs and housing within one-quarter mile distance of transit service.
  - Percentage of workforce that can reach their workplace by transit within one hour with no more than one transfer.
  - Per Capita Vehicle Miles of Travel (VMT) by facility type and mode.
  - Households within one-quarter mile of transit.
  - Transit share of travel (by transit sub-mode).
  - Households within five miles of park-and-ride lots or major transit centers

### **Construction of Segments that Provide Connectivity with other Elements of the Regional Transportation System**

The phasing of the development of the transportation network should be done in a logical sequence, so that maximum possible system continuity, connectivity and efficiency are maintained. In the RTP, Appropriately located transportation facilities around the region enhance the general mobility throughout the region. To the extent possible, facility construction and transportation service should be sequenced to result in a continuous and coherent network and to avoid gaps and isolated segments, bottlenecks and dead-end routes. Segments that allow for the connection of existing portions of the transportation system should be given a higher priority than segments that do not provide connectivity.

### **Other relevant criteria developed by the regional planning agency**

As part of the RTP, a series of objectives for the regional transportation network were identified. Two key objectives were to achieve broad public support for the needed investments, and to



develop a regionally balanced plan that provides geographic equity in the distribution of investments. Specific criteria related to these objectives are:

- Transportation decisions that result in effective and efficient use of public resources and strong public support.
- Geographic distribution of transportation investments.
- Inclusion of committed corridors.

**PLEASE NOTE: THIS IS NOT THE FULL GUIDANCE DOCUMENT. A  
FULL ELECTRONIC VERSION IS AVAILABLE AT  
<http://www.fhwa.dot.gov/environment/cmaqpgs/index.htm>.**

**The Congestion Mitigation and Air Quality (CMAQ) Improvement  
Program**

**under the**

**Safe, Accountable, Flexible, Efficient Transportation Equity Act: A  
Legacy for Users**

**INTERIM PROGRAM GUIDANCE**

**October 31, 2006**

The guidance contained in this document is intended to be nonbinding, except insofar as it references existing statutory requirements, and should not be construed as rules of general applicability and legal effect or notices of proposed rulemaking.



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## I. INTRODUCTION

The CMAQ program was created under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, continued under the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), and reauthorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).<sup>1</sup> Over \$8.6 billion is authorized over the five-year program (2005-2009), with annual authorization amounts increasing each year during this period. Through 2005, the program has supported nearly 16,000 transportation projects across the country.

This guidance replaces the April 1999 version and provides information on the CMAQ program, including:

- Authorization levels and apportionment factors specific to the SAFETEA-LU
- Flexibility and transferability provisions available to States
- Geographic area eligibility for CMAQ funds
- Project eligibility information
- Project selection processes
- Program administration

Appendices 1-3 provide updated statutory language relating to the CMAQ program. Appendix 4 illustrates the comparative cost-effectiveness of potential CMAQ projects. Appendix 5 provides supplemental information on diesel retrofit projects.

Information on the current annual apportionment to each State and an electronic version of this guidance are available at <http://www.fhwa.dot.gov/environment/cmaqpgs/index.htm>.

## II. PROGRAM PURPOSE

The purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (PM).

The CMAQ program supports two important goals of the Department of Transportation: improving air quality and relieving congestion. While these goals are not new elements of the program, they are strengthened in a new provision added to the CMAQ statute by SAFETEA-LU, establishing priority consideration for cost-effective emission reduction and congestion mitigation activities when using CMAQ funding.

Reducing pollution and other adverse environmental effects of transportation projects and transportation system inefficiency have been long-standing objectives of the Department of Transportation. The strategic plans for the Department of Transportation and for the Federal Highway Administration both include performance measures specifically focused on reducing air pollution from transportation facilities. The CMAQ program provides funding for a broad array of tools to accomplish these goals. By choosing to fund a CMAQ project, a State or local government can improve air quality and make progress towards achieving attainment status and ensuring compliance with the transportation conformity provisions of the Clean Air Act.

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<sup>1</sup> Pub. L. 109-59, 119 Stat. 1144 (Aug. 10, 2005).



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Reducing congestion is also a key objective of the Department of Transportation, and one that has gained increasing attention in the past several years. The cost of congestion, which negatively affects the U.S. economy, quality of life, and air quality, has risen dramatically in the last 25 years despite record levels of transportation investment. Some economists estimate that the overall cost of congestion to the U.S. economy approaches \$200 billion a year. As a result, the Secretary of Transportation recently issued a *National Strategy to Reduce Congestion on America's Transportation Network* that aims to meaningfully reduce the economic and social costs of congestion on our nation's highways and in other transportation facilities. This strategy can be found at: <http://isddc.dot.gov/OLPFiles/OST/012988.pdf>.

Since congestion relief projects also reduce idling, the negative emissions impacts of "stop and go" driving, and the number of vehicles on the road, they have a corollary benefit of improving air quality. Based on their emissions reductions, these types of projects, including investments in improved system pricing and operations, are eligible for CMAQ funding. The Department believes State and local governments can simultaneously reduce the costly impacts of congestion while also improving air quality.

### III. AUTHORIZATION LEVELS UNDER THE SAFETEA-LU

#### A. Authorization Levels

Table 1 shows the SAFETEA-LU CMAQ authorization levels by fiscal year. The CMAQ funds will be apportioned to States each year based upon the apportionment factors discussed in Section V.

**TABLE 1**

<b>SAFETEA-LU CMAQ AUTHORIZATION LEVELS</b>	
<b>Fiscal Year Authorization</b>	<b>Amount Authorized</b>
FY 2005	\$1,667,255,304
FY 2006	\$1,694,101,866
FY 2007	\$1,721,380,718
FY 2008	\$1,749,098,821
FY 2009	\$1,777,263,247

#### B. Equity Bonus

Similar to the minimum guarantee under the TEA-21, the Equity Bonus in SAFETEA-LU provides additional funding beyond the authorized levels so that each State receives a minimum percentage of its gas tax receipts back in the form of Federal-aid funds.<sup>2</sup>

#### C. Transferability of CMAQ Funds

Since transportation and environmental program priorities fluctuate, States may choose to transfer a limited portion of their CMAQ apportionment to the following Federal-aid highway programs: Surface Transportation Program (STP), National Highway System (NHS), Highway

<sup>2</sup> 23 U.S.C. §105 (SAFETEA-LU §1104)



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Bridge Program (HBP), Interstate Maintenance (IM), Recreational Trails Program (RTP), and the Highway Safety Improvement Program (HSIP). States may transfer CMAQ funds according to the following provision: An amount not to exceed 50 percent of the quantity of the State's annual apportionment less the amount the State would have received if the CMAQ program had been authorized at \$1,350,000,000.<sup>3</sup> For example, if the annual national apportionment is \$1.75 billion and a State receives \$10 million more than it would have received if the national apportionment had been \$1.35 billion, the State can transfer up to \$5 million to other programs. Any transfer of such funds must still be obligated in nonattainment and maintenance areas. The amount of transferable funds will differ each year and by State, depending on overall authorization levels. Each year, the FHWA will inform States how much, if any, CMAQ funding is transferable and will track this movement of CMAQ funds.<sup>4</sup>

States also may transfer CMAQ funds to other Federal agencies. The SAFETEA-LU provides additional flexibility to complete such transfers when the receiving Federal agency has entered into an agreement with the State to undertake an eligible Federal-aid project.<sup>5</sup> These opportunities apply to projects that have met all CMAQ eligibility requirements prior to the transfer.

#### **D. CMAQ and Innovative Finance: State Infrastructure Bank (SIB) and Section 129 Loans**

Projects with dedicated repayment streams, i.e., a consistent source of revenue, may be financed with loans through DOT's innovative finance program as an alternative or supplement to CMAQ funding.

State Infrastructure Banks are State-directed programs that allow Federal-aid funds to be lent to sponsors of eligible Federal-aid projects (any project under Title 23 or 49 is eligible). SIBs may be capitalized with several Federal-aid highway apportionments including the National Highway System Program, the Surface Transportation Program, the Highway Bridge Program, and the Equity Bonus program. (Note: CMAQ may not be used to *capitalize* a SIB, but SIB funds may be used to *finance* CMAQ projects). State funds also may be used to capitalize the SIB. The State then receives repayments over time that can be directed toward other transportation projects. For example, New York State was successful in utilizing its SIB to implement two truck stop electrification projects along the New York State Thruway.

Section 129 loans (23 USC §129(a)(7)) allow states to use Federal-aid highway apportionments to make loans for projects with dedicated revenue streams (this is only applicable to highway, bridge, tunnel, ferry boat, and ferry terminal projects). A Section 129 loan may be used to construct a truck stop electrification facility if the facility is located on the Interstate right-of-way.<sup>6</sup>

The SAFETEA-LU establishes a new SIB program under which all States are authorized to enter into cooperative agreements with the U.S. DOT to establish infrastructure revolving-funds eligible to be capitalized with Federal transportation funds.<sup>7</sup> The key difference between a

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<sup>3</sup> 23 U.S.C. §126

<sup>4</sup> 23 U.S.C. §110(c)

<sup>5</sup> 23 U.S.C. §132(a) (SAFETEA-LU §1119)

<sup>6</sup> 23 U.S.C. §111(d) (SAFETEA-LU §1412)

<sup>7</sup> 23 U.S.C. §190 (SAFETEA-LU §1602)



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Section 129 loan and a SIB is that a Section 129 loan usually provides financing to an individual project and funding a SIB capitalizes a financial entity that can assist multiple projects. The two loan programs have similar maximum allowable terms established by Federal law:

- Both public and private entities are eligible to be project sponsors
- Repayments must begin within 5 years of project completion
- Maximum loan term is 30 years after project authorization (Section 129) or 30 years after first repayment (SIB)
- Interest rate may be set by State, at or below market rates
- Loans can only be made up to 80 percent of eligible project costs (Section 129). For SIBs, loans can be made up to 100 percent of eligible project costs (although when the State first creates a SIB, it is required to contribute a non-Federal match of 20 percent)

These innovative loan programs can increase the efficiency of States' transportation investments and significantly leverage Federal resources by attracting non-Federal public and private investment, and provide greater flexibility to the States by allowing other types of project assistance in addition to grant assistance. This type of financing is important for new technologies or start-up businesses that may have difficulty finding financing in the private capital markets. In addition to SIBs and section 129 loans, the FHWA also administers the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, which provides Federal credit assistance to large-scale projects greater than \$50 million.

The following example illustrates how a Section 129 loan could work to construct an idle-reduction facility on an Interstate right-of-way. A private party intends to build a stationary idle-reduction facility, and seeks grant funding for it from the State DOT. The idle reduction facility will eventually earn a profit by charging user fees, but since the capital costs are high, the private party needs assistance with financing the initial construction. Instead of providing an outright grant, the State could offer a loan of Federal-aid funds with flexible repayment terms. If the facility required \$1 million for initial construction, the State could make a loan at five percent over fifteen years. The State could accelerate the payments if the facility were more successful than expected, and delay repayment if the facility failed to meet revenue targets. The State could also build in credits for additional emissions reductions, providing incentives for additional loans or grants to idle reduction projects. More information on the DOT's innovative finance program is available at <http://www.fhwa.dot.gov/innovativefinance/>.

#### IV. PRIORITY FOR USE OF CMAQ FUNDS

The SAFETEA-LU directs States and MPOs to give priority to two categories of funding. First, to diesel retrofits, particularly where necessary to facilitate contract compliance, and other cost-effective emission reduction activities, taking into consideration air quality and health effects. Second, priority is to be given to cost-effective congestion mitigation activities that provide air quality benefits.<sup>8</sup> Appendix 4 illustrates the comparative cost-effectiveness of several potential CMAQ projects. Other projects also may be cost-effective. The priority provisions in the statute apply to the portion of CMAQ funds derived from the application of Sections 104(b)(2)(B) and 104(b)(2)(C), i.e., the CMAQ apportionment formula. They do not apply to areas where CMAQ funding has been derived from the minimum apportionment provisions.

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<sup>8</sup> 23 U.S.C. §149(f)(3) (SAFETEA-LU §1808(d))





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Though the SAFETEA-LU establishes these CMAQ investment priorities, it also retains State and local agencies' authority in project selection. The law maintains the existing roles and authorities of public agencies, and substantial shifts in local procedures are not required by the SAFETEA-LU.<sup>9</sup> However, project selection should reflect the positive cost-effectiveness relationships highlighted in Appendix 4. State and local transportation programs that implement a broad array of these cost-effective measures may record a more rapid rate of progress toward their clean air goals, since many of these endeavors generate immediate benefits. Local procedures that elevate the importance of these efforts in project selection—and rate them accordingly—may accelerate the drive to air quality attainment.

In addition to the SAFETEA-LU priority on cost-effectiveness, Section 176(c) of the Clean Air Act<sup>10</sup> (CAA) requires that the FHWA and FTA ensure timely implementation of transportation control measures (TCMs) in applicable State Implementation Plans (SIPs). These and other CMAQ-eligible projects identified in approved SIPs must receive funding priority.

The FHWA recommends that States and MPOs develop their transportation/air quality programs using complementary measures that provide alternatives to single-occupant vehicle (SOV) travel while improving traffic flow through operational strategies and balancing supply and demand through pricing, parking management, regulatory, or other means.

## V. ANNUAL APPORTIONMENTS OF CMAQ FUNDS TO STATES

### A. CMAQ Apportionments

Federal CMAQ funds are apportioned annually to each State according to the severity of its ozone and CO problem (see Appendix 2). The population of each county (based upon Census Bureau data) that is in a nonattainment or maintenance area for ozone and/or CO is weighted by multiplying by the appropriate factor listed in Table 2. PM nonattainment and maintenance areas and former 1-hour areas, except those few 1-hour maintenance areas participating in Early Action Compacts, are not included in the apportionments.

Note: CMAQ apportionments and CMAQ eligibility are two different things. Some areas in which CMAQ funds may be spent are not included in the apportionments (see Section VI.).

TABLE 2

SAFETEA-LU CMAQ APPORTIONMENT FACTORS <sup>11</sup>		
POLLUTANT	CLASSIFICATION AT THE TIME OF ANNUAL APPORTIONMENT	WEIGHTING FACTOR
Ozone (O <sub>3</sub> ) or (CO)	Maintenance (these areas had to be previously eligible as nonattainment areas - See Section VI.)	1.0
Ozone	Subpart 1 ("Basic")	1.0
Ozone	Marginal	1.0
Ozone	Moderate	1.1
Ozone	Serious	1.2

<sup>9</sup> 23 U.S.C. §149(f)(3)(B) (SAFETEA-LU §1808(d))

<sup>10</sup> 42 U.S.C. §7506 Section 176(c)(2)(B)

<sup>11</sup> 23 U.S.C. §104(b)(2) (SAFETEA-LU §1103(d))

# EXAMPLE OF CMAQ EVALUATION FROM 2007

Table 1 - Evaluation of Proposed AIR QUALITY Projects for the Federal Fiscal Year 2013 Sorted by PM10 Emission Reductions  
Approximately \$7.5 million available for FY 2013 (RTP)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score <sup>11</sup>	CMAQ Funds Requested
MAGFED07-05	MAG	Regionwide	Pave Unpaved Roads Program <sup>1</sup>	2013	10.00	0.00	0.00	726.22	726.22	1144.39	NS	\$4,513,000
MAGFED07-06	MAG	Regionwide	Purchase PM-10 Certified Street Sweepers <sup>2</sup>	2013		0.00	0.00	192.51	192.51	1824.64	NS	\$900,000
VMT13-903	MAG-Valley Metro	Regionwide	Telework/Ozone Education Program <sup>3</sup>	2013		67.84	61.65	279.14	408.63	2278.93	NS	\$330,000
RFTA	Maricopa County	Regionwide	Trip Reduction Program <sup>4</sup>	2013		52.38	47.60	431.09	531.07	4835.39	NS	\$910,000
VMT13-901	MAG-Valley Metro	Regionwide	Regional Rideshare Program <sup>5</sup>	2013		36.53	33.20	300.61	370.34	4991.01	NS	\$655,000
MAG06-210	MAG	Regionwide	Travel Reduction Program <sup>5</sup>	2013		0.38	0.35	3.15	3.88	98149.10	NS	\$135,000
MES13-903	Mesa	City of Mesa	City of Mesa Gas Division proposes to offer a grant using CMAQ project funds and operating funds to aid in the installation of home alternative fuel vehicle refueling stations, "Fuel Makers" for natural gas vehicles.	2013		NB <sup>12</sup>	NB <sup>12</sup>	0.0006	NB <sup>12</sup>	NB <sup>12</sup>	NS	\$133,000
MES13-904	Mesa	City of Mesa and surrounding communities	The City of Mesa proposes to install and operate a community natural gas refueling station for owners of alternative fuel vehicles utilizing existing city compressor infrastructure.	2013		NB <sup>12</sup>	NB <sup>12</sup>	0.0003	NB <sup>12</sup>	NB <sup>12</sup>	NS	\$166,000

Table 2 - Evaluation of Proposed BICYCLE and PEDESTRIAN Projects for the Federal Fiscal Year 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score <sup>11</sup>	CMAQ Funds Requested
VMT13-902	Valley Metro	Valleywide	Bicycle Safety Education Program <sup>6</sup>	2013		1.83	1.66	15.03	18.52	\$26,670	NS	\$175,000
GLB13-902	Gilbert	Consolidated canal and Ray Rd., Eastern Canal & Williams Field Rd, Western Powerline & McQueen Rd, Western Powerline & Val Vista Rd, Western Powerline & Greenfield Rd, and Western Powerline & Recker Rd	Gilbert Bicycle Crossing Safety and Improvement Demonstration Phase II Project <sup>7</sup>	2013	22.5	0.41	0.20	0.72	1.32	\$82,714	NS	\$595,000
GLB13-901	Gilbert	One mile radius from the Gilbert Elementary School, Mesquite Elementary School, Gilbert Junior High School, and Mesquite Junior High School	2007 Gilbert Pedestrian Safety & Traffic Calming Project <sup>8</sup>	2013	4	0.08	0.02	0.08	0.17	\$201,051	NS	\$190,000